CLAIMS

1 - Use of an organic compound salt of general formula

A-X Y (I)

wherein A means an organic residue, X means a charged group and Y means a counter-ion, as a reagent in an electrochemical reaction.

2 - Use according to claim 1, wherein the group X is a cationic group.

3 - Use according to claim 2, wherein the group X is NR_3^+ and R is one or several organic residues.

4 - Use according to anyone of claims 1 to 3, wherein the group Y is selected among Br^-, Cl^-, ClO_4^-, BF_4^-, PF_6^-, toluene-sulphonate (Tos^-) and benzenesulphonate ($PhSO3^-$).

5 - Use according to claim 4, wherein the group Y is a mixture consisting essentially of 90 to 99.5% by weight of at least one ion selected among ClO_4^-, BF_4^-, PF_6^-, Tos^- and $PhSO3^-$ and of from 0.5 to 10% by weight of Cl^-.

6 - Use according to anyone of claims 1 to 5, wherein the organic compound salt corresponds to the formula

R1R2R3C-T-Q-X Y

wherein

R1R2R3C means a substituted carbon atom, capable of reacting in the electrochemical reaction,

T means an activating group for the electrochemical reaction and

Q means a connecting group linking the activating group T and the charged group X.

7 - Use according to claim 6, wherein the group T is selected among NR4, O and S wherein R4 means a hydrogen atom or an organic residue.

8 - Use according to claim 6 or 7 wherein the group Q is selected among a linear or branched alkylene or cyclo-alkene group, preferably containing from 1 to 12 carbon atoms, optionally substituted with a functional group and optionally

linked to the group T by a functional selected among –(C=O)– , –N–(C=O)–, –O–(C=O)–, –(S=O)–, –N–(S=O)–, $–SO_2–$, $–N–SO_2–$, –(C=S)– and –N–(C=S)–.

9 - Use according to anyone of claims 6 to 8, wherein at least R3 is hydrogen.

10 - Use according to anyone of claims 1 to 9, wherein the organic compound salt comprises at least one stereogenic centre and is enantiomerically pure.

11 - Use according to anyone of claims 6 to 10, wherein the organic compound salt corresponds to the formula
$R1R2R3C\text{-}NR4\text{-}Q\text{-}NR_3^+ Y^-$
wherein the group Q is selected among a linear or branched alkylene group, preferably containing from 1 to 12 carbon atoms, optionally substituted with a functional group and linked to the group T by a functional selected among -(C=O)– , –N–(C=O)–, –O–(C=O)– and $–SO_2–$.

12 - Process for production of an organic compound comprising

(a) a stage wherein a solution containing an organic compound salt in conformity with anyone of claims 1 to 11 in a solvent is prepared

(b) a stage wherein the solution is subjected to electrolysis in the presence of at least one co-reactant under conditions sufficient to form the product of reaction of the organic compound salt with the co-reactant.

13 - Process according to claim 12, wherein stage (b) is an electrooxidation.

14 - Process according to claim 12 or 13, wherein stage (b) is carried out at a current density of from 0,1 to 50 A/dm^2.

15 - Process according to anyone of claims 12 to 14, wherein stage (b) is carried out at a temperature of from -50 to 100°C.

16 - Process according to anyone of claims 12 to 15, wherein the solvent consists essentially of co-reactif and is preferably selected among water, methanol, ethanol and acetic acid.

17 - Process according to anyone of claims 12 to 16, wherein the organic compound salt is in conformity with claim 11 and the co-reactif is methanol.

18 - Process according to anyone of claims 12 to 16, wherein the co-reactif is acetic acid.

19 - Process according to anyone of claims 12 to 18, carried out in the substantial absence of conducting salt.

20 - Organic compound salt corresponding to the formula
R1R2ZC-T-Q-X Y
wherein
X is a charged group,
Y is a counter-ion,
Z is a group capable of being substituted,
R1 and R2 mean organic residues,
T means a group containing a hetero atom selected among N-R4, O and S,
wherein R4 means a hydrogen atom or an organic residue, and
Q means a connecting group linking the hetero atom and the charged group.

21 - Organic compound salt according to Claim 20, wherein the group T is N-R4.

22 - Organic compound salt according to Claim 20 or 21, wherein the group Q is selected among a linear or branched alkylene group or a cycloalkylene group, possibly substituted by a functional group, preferably containing from 1 to 12 carbon atoms and possibly linked to the group T by a functional group selected among –(C=O)– , –N–(C=O)–, –O–(C=O)–, –(S=O)–, –N–(S=O)–, $–SO_2–$, –N–$SO_2–$, –(C=S)– and –N–(C=S)–.

23 - Organic compound salt according to Claim 22, wherein the group Q is linked to the group T by a functional group selected among –(C=O)– , -N-(C=O)–, –O–(C=O)–, -$SO_2–$ and –N–$SO_2–$.

24 - Organic compound salt according to any one of Claims 20 to 23, wherein the group X is a cationic group.

25 - Organic compound salt according to any one of Claims 20 to 24, wherein the group X is NR_3^+ and R signifies organic residues.

26 - Organic compound salt according to any one of Claims 20 to 25, wherein the group Y is selected among Br^-, Cl^-, ClO_4^-, BF_4^-, PF_6^-, Tos^- and $PhSO3^-$.

27 - Organic compound salt according to any one of Claims 20 to 26, wherein the group Z is methoxy.

28 - Organic compound salt according to any one of Claims 20 to 27, containing at least one stereogenic centre.

29 - Use of an organic compound salt according to any one of Claims 20 to 28 as starting material for a substitution reaction.